

terials. The main weakness in the integration of these two parts of the study is that they do not relate to the same groups of sterilized persons. The records of persons sterilized by the Eugenics Board authority are protected from public inspection and so the follow-up study is of women who had been sterilized by private physicians or through other avenues than that provided by the law, which is the focus of attention of the major part of the book.

In both parts of the book there are instances of uncritical acceptance of certain generalizations made by the author or cited from other works. These appear to arise more from lack of rigorous training and experience in research method and evaluation of research than from deliberate purposeful bias of the author. For example, the description of North Carolina on p. xiv of the Introduction is oversimplified, to say the least, and includes sentences that could be challenged. Citations relating to the extent of mental deficiency (p. 6) are not appraised in relation to the validity of the statistics underlying them. Statements on such matters as the role of heredity in intelligence (p. 102) and the effect of contraception on quality of population (p. 104) are generally accompanied by references to earlier studies, but they are not accompanied by any critical appraisal of the studies or by references to later studies that throw grave doubt on some of the generalizations rather naively accepted by the author as proven beyond the shadow of a doubt.

In fairness, Miss Woodside's book should be appraised from two points of view. As a descriptive analysis of a program that has practical importance but that in recent years has had relatively little attention, the book is to be commended. As an example of social research, it has serious defects.

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HUMAN ECOLOGY¹

MUCH of the credit for the development of the ecological approach to the study of social problems belongs to the

¹Hawley, Amos H.: *HUMAN ECOLOGY*. New York, The Ronald Press, 1950, 466 pp., \$5.00.

late Professor R. D. McKenzie of the University of Chicago. Perhaps to many sociologists the very word ecology immediately brings to mind the many maps prepared by McKenzie and his colleagues and students depicting the spatial distribution of juvenile delinquency, crime, etc. in Chicago during the 'twenties and 'thirties. Before his death in 1940, McKenzie had started work on a comprehensive treatment of human ecology. The task of carrying this work to completion fell to his former student, Amos H. Hawley, now of the University of Michigan. The book under consideration, *HUMAN ECOLOGY*, is the result of this arrangement.

The term "ecology" is one of many that sociologists have borrowed from the field of biology. The great field naturalist, Ernst Haeckel, is credited with coining the term in 1868 in connection with his studies of plants. First and most fully developed in the field of botany, the "ecological approach" was next applied in the field of zoology and still later in the social sciences.

It is erroneous to infer, as did some of the early critics of McKenzie, that human ecology is simply the study of spatial distribution of people or social phenomena. According to Hawley, human ecology "fastens its attention upon the human interdependencies that develop in the action and reaction of a population to its habitat." The subtitle of his book "*A Theory of Community Structure*," indicates the scope of the field as visualized by the author.

Hawley's book is divided into four parts. In Part I, "Ecology and Human Ecology," the author discusses the historical development of plant, animal, and human ecology and suggests "communal adaptation" as the central subject matter of these three branches of ecology. He states that scientific ecology "is indebted to Darwin for the main outlines of its theory, the essential conceptions being: (1) the web of life in which organisms are adjusted or are seeking adjustment to one another, (2) the adjustment process as a struggle for existence, and (3) the environment comprising a highly complex set of conditions of adjustment." (pp. 5-6)

Part II, "The Human Aggregate," is essentially a section on demography. It contains chapters on habitat and population,

population growth, composition of population, and population balance. Although the reviewer read this section with some special interest, he had the feeling that it had not been integrated very well with ecological theory. Part III, "Ecological Organization," contains the core of the author's theory. It consists of chapters on differentiation and organization, community structure, and spatial and temporal aspects of ecological organization. The final section, Part IV, is entitled "Change and Development." It includes a chapter on mobility and change and three chapters on "expansion" related, respectively, to inter-regional organization, the growth of the city, and the local community.

Only a cursory examination of this book is sufficient to indicate the time-consuming work involved in its preparation. The book has all the earmarks of a careful and scholarly work. Its wide scope, its systematic treatment, and its copious citation to other works give it the qualifications of a good textbook and an indispensable reference book in this field.

The study of the nature and development of community structure is an important purpose of the book. However, to this reviewer, the author's treatment of community structure was somewhat disappointing. According to Hawley, "the collective life of man, as of all other organisms, revolves simultaneously about two axes, one of which is symbiotic, the other commensalistic. The former pertains to interdependence of unlike forms, i.e., units of dissimilar functions; the latter to the co-action of like forms, i.e., units of similar functions. . . . Each represents a peculiar and complementary integrative force and together, therefore, they constitute the basis of community cohesion. The community is thus a symbiotic-commensalistic phenomenon." (p. 209)²

Hawley amplifies this theory with the statement that "two distinguishable forms of groupings develop from the two relationships. The symbiotic relation is the basis of what may be called a *corporate* group. Such a group is internally differenti-

² The above in effect represents a bringing together of Herbert Spencer's and Auguste Comte's theories of social unity. As Hawley explains, Spencer held that division of labor and the consequent need for integration are the bases of social unity. Comte emphasized that the essential factor in social unity is "consensus" or similarity of traditions, beliefs, etc.

corporate and categoric units. Other sections of Hawley's book, which are admirably done, suggest that sufficient data have been collected for the formulation of hypotheses on community structure and theory of human ecology.

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